

APPENDIX B: FINAL VERSIONS OF AMENDED PARAGRAPHS IN THE SPECIFICATION

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Paragraph starting at line 13 of page 12:

C1
In another aspect of the present invention, compounds are provided of structures I and II wherein: R is hydrogen, substituted C₁-C₅ alkyl, unsubstituted C₁-C₅ alkyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, or unsubstituted alkylaryl; R⁰ is hydroxyl or methoxy; R¹ is hydrogen or hydroxyl; R² and R³ are each independently substituted C₁-C₅ alkyl, unsubstituted C₁-C₅ alkyl, substituted phenyl, unsubstituted phenyl, substituted benzyl or unsubstituted benzyl; R⁴ is methyl; R⁵ is hydroxyl or oxo; R⁶ is hydrogen, hydroxyl or OR¹² wherein R¹² is substituted C₁-C₅ alkyl or unsubstituted C₁-C₅ alkyl; R⁷ is substituted methyl, unsubstituted methyl, substituted C₃-C₅ alkyl, unsubstituted C₃-C₅ alkyl, substituted C₂-C₅ alkenyl, unsubstituted C₂-C₅ alkenyl, substituted C₂-C₅ alkynyl, unsubstituted C₂-C₅ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl or alkenylaryl; or R⁸ is substituted C₁-C₅ alkyl, unsubstituted C₁-C₅ alkyl, substituted C₂-C₅ alkenyl, unsubstituted C₂-C₅ alkenyl, substituted C₂-C₅ alkynyl, unsubstituted C₂-C₅ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl; and, x is single bond or a double bond.

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Paragraph starting at line 17 of page 18:

C2
For erythromycins where the substituent at C-13 is methyl or ethyl, the 6-deoxyerythronolide B synthase ("DEBS") from *S. erythraea* can be used in a recombinant expression system described in U.S. Patent No. 5,672,491 to produce the aglycone in *Streptomyces coelicolor*. Optionally, the oleandolide or megalomicin polyketide synthase ("PKS") genes may be used in this expression system. See U.S. Provisional Patent Application Serial No. 60/158,305 filed October 8, 1999 and utility application Serial No. 09/679,279 filed October 4, 2000 entitled Recombinant Megalomicin Biosynthetic Genes by inventors Robert McDaniel and Yana Volchegursky (U.S. Serial No. 10/125,815); and PCT Publication No. WO 00/026349 which are all incorporated herein by reference.

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Paragraph starting at line 14 of page 20:

C3
Other starting materials include 6-hydroxy-erythromycin (where the methyl at C-6 has been replaced with a hydroxyl group), 6-oxo erythromycin (where the methyl at C-6 has been replaced with an oxo group), 6-methoxy erythromycin (where the methyl at C-6 has been replaced with a methoxy group) and 6-desmethyl, 7-hydroxy-erythromycin. In one embodiment, 6-OH, 6-OMe erythromycins are made by replacing AT4 of 6-dEB or 8,8a- deoxyoleandolide synthase with an AT domain encoding hydroxymalonate or methoxymalonate. See PCT Publication WO 00/20601 which is incorporated herein by reference. The 6-OH and 6-OMe aglycone is bioconverted to 6-desmethyl-6-hydroxy erythromycin and 6-

Serial No.: 09/990,554
Attorney Docket No.: 010041.02

C3 desmethyl-6-methoxy erythromycin respectively by fermentation with an appropriate *eryA* mutant that is incapable of producing 6-dEB and in which the *eryF* (C-6 hydroxylase) function has been deleted or otherwise inactivated. Fermentation of 6-OH or 6-OMe aglycone with an *eryA* mutant that possesses *eryF* (or equivalent) function leads to the 6-desmethyl-6-oxo erythromycin.

Paragraph starting at line 20 of page 27:

C4 In another aspect of the present invention, methods for converting the 3'-desmethyl erythromycin oximinooester into 3'-desmethyl-R erythromycin oximinooesters are provided. Two embodiments are illustrated in Scheme 8.
